FORM MR-LMO
(Revised January 2003)

FOR DIVISION USE ONLY
File #: M/023/1003
Date Received: Jan 19, 2005
DOGM Lead: LMK
Permit Fee $_____ Ck # _____

**STATE OF UTAH**
DEPARTMENT OF NATURAL RESOURCES
**DIVISION OF OIL, GAS AND MINING**
1594 West North Temple Suite 1210
Box 145801
Salt Lake City, Utah 84114-5801
Telephone: (801) 538-5291 Fax: (801) 359-3940

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JAN 19 2005
DIV OF OIL GAS & MINING

# NOTICE OF INTENTION TO COMMENCE LARGE MINING OPERATIONS

The informational requirements in this form are based on provisions of the Mined Land Reclamation Act, Title 40-8, Utah Code Annotated 1953, General Rules and Rules of Practice and Procedures.

**This form applies only to mining operations which disturb or will disturb more than five acres at any given time.**

"MINING OPERATIONS" means those activities conducted on the surface of the land for the exploration for, development of, or extraction of a mineral deposit, including, but not limited to, surface mining and the surface effects of underground and in situ mining, on-site transportation, concentrating, milling, evaporation, and other primary processing.

"Mining operation" does not include: the extraction of sand, gravel, and rock aggregate; the extraction of oil and gas as defined in Chapter 6, Title 40; the extraction of geothermal steam; smelting or refining operations; off-site operations and transportation; or reconnaissance activities which will not cause significant surface resource disturbance or involve the use of mechanized earth-moving equipment such as bulldozers or backhoes.

PLEASE NOTE: *This form is to be used as a guideline in assembling the information necessary to satisfy the Large Mining Operations Notice of Intention requirements.* ***You will need extra space to provide a majority of the information requested****. Please provide the information on additional sheets and include cross-referenced page numbers as necessary. The Permittee / Operator may submit this information on an alternate form; however, the same or similar format must be used.*

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## I. Rule R647-4-104 - Operator(s), Surface and Mineral Owners

The Permittee / Operator must provide the name, address and telephone number of the individual or company who will be responsible for the proposed operation. If a company is to be listed as the Permittee / Operator, then the name of the corporate officers need to be provided.

1. **Mine Name**: Deer Trail Mine and Mill

2. **Name of Permittee/ Operator/ Applicant:** Unico Incorporated
   Company ( ) Corporation (x ) Partnership ( ) Individual ( )
   A corporation must be registered with the State of Utah, Division of Corporations. Are you currently registered to do business in the State of Utah? G **Yes**

   Business License # 5295096 - 0143

   Registered Agent (as identified on your business license): Wayne C. Hartle
   Address: 1955 East 2700 South
   Salt Lake City, Utah 84106
   Phone: 801-467-4922 Fax: 801-796-0257

3. **Permanent Address**: P.O. Box 777
   Magalia, CA 95954
   Phone: 530-873-4394 Fax: 801-796-0257

4. **Company Representative** (or designated operator):

   Name: W. Dan Proctor
   Title: Project Manager
   Address: 951 East 830 South, Pleasant Grove, Utah 84062
   Phone: 801-361-4242 Fax: 801-796-0257

5. **Location of Operation**:
   County(ies) Piute
   NW 1/4 of _____ 1/4, Section: 18 Township: 28 S Range: 3 W
   NE 1/4 of _____ 1/4, Section: 13 Township: 28 S Range: 4 W
   SW 1/4 of _____ 1/4, Section: 12 Township: 28 S Range: 4 W
   SW ¼ Section 12 and SE ¼ Section 12 and SE ¼ Section 11, T 28 S, R 4 W

The names of the surface and mineral owners for any areas which are to be impacted by mining must be provided to the Division. This list should include all private, state and federal ownership and the owners of lands immediately adjacent to the project areas.

6. **Ownership of the land surface** (circle all that apply): in bold
   **Private** (Fee), **Public Domain** (BLM), **National Forest** (USFS), State of Utah (SITLA) or other:

   Name: Unico Incorporated Address: P.O. Box 777, Magalia, CA 95954
   Name: Crown Mines Address: P. O. Box 743547, Dallas, Texas 75374-3547

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7. **Owner(s) of record of the minerals to be mined** (bold all that apply):
**Private** (Fee), Public Domain (BLM), National Forest (USFS), State of Utah (SITLA) or other:

Name: Crown Mines Address: P.O. Box 743547, Dallas, Texas 75374-3547

8. **BLM Lease or Project File Number(s) and/or USFS Assigned Project Number(s): N/A**

**Utah State Lease Number(s): N/A**
**Name of Lessee(s):**

9. **Adjacent land owners:**

Name: Crown Mines Address: P.O. Box 74357, Dallas, Texas 75374-3547

10. **Have the land, mineral and adjacent land owners been notified in writing?**
**Yes**

If no, why not?

11. **Does the Permittee / Operator have legal right to enter and conduct mining operations on the land covered by this notice? Yes**

## II. Rule R647-4-105 - Maps, Drawings & Photographs

### 105.1 - Base Map

A complete and correct topographic base map (or maps) with appropriate contour intervals must be submitted with this notice showing all of the items on the following checklist. The scale should be approximately 1 inch = 2,000 feet (preferably a USGS 7.5 minute series or equivalent topographic map where available). The map(s) must show the location of lands to be affected in sufficient detail to allow measurement of the proposed area of surface disturbance.

Base Map Checklist

Please check off each section to verify these features are included on the map(s) or explain why it is not applicable. Please add the map identification name or number which shows these features.

| Check | | | Map ID |
|---|---|---|---|
| _____ | (a) | Property boundaries of surface ownership of all lands which are to be affected by the mining operations; | _____ |
| _____ | (b) | Perennial, intermittent, or ephemeral streams, springs and other bodies of water; roads, buildings, landing strips, electrical transmission lines, water wells, oil and gas pipelines, existing wells or boreholes, or other existing surface or subsurface facilities within 500 feet of the proposed mining operations; | _____ |

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_____ (c) Proposed route of access to the mining operations from nearest publicly maintained highway (Map scale appropriate to show access); _____

_____ (d) Known areas which have been previously impacted by mining or exploration activities within the proposed land affected; _____

_____ (e) Areas proposed to be disturbed or reclaimed over the life of the project or other suitable time period. _____

**105.2 - Surface Facilities Map**

Surface Facilities Map Checklist

Surface facilities maps should be provided at a scale of not less than 1" = 500'.

Please check off each section to verify these features are included on the map(s) or explain why it is not applicable. Please add the map identification name or number which shows these features.

Check Map ID

_____ (a) Proposed surface facilities, including but not limited to: buildings, stationary mining/processing equipment, roads, utilities, power lines, proposed drainage control structures, and the location of topsoil storage areas, overburden/waste dumps, tailings or processed waste facilities, disposal areas for overburden, solid and liquid wastes, and wastewater discharge treatment and containment facilities; _____

_____ (b) A border clearly outlining the extent of the surface area proposed to be affected by mining operations, and the number of acres proposed to be affected; _____

(c) The location of known test borings, pits, or core holes. _____

*Upon a thorough inspection of the operation's property seventeen (17) buildings and or structures were identified. The following is a list of these structures: 1) mill building 65,640 CF, 2) cinder block dry/lab building* 5,120, 3) motor barn* 8,148 CF, 4) empty utility shed* 105 CF, 5) compressor building* 5,120 CF, 6) light room w/attached tunnel cover* 5,840 CF, 7) shop* 3,200 CF, 8) core shed* 3,000 CF, 9) old wooden cabin* 4,274 CF, 10) small cider block shop at #3 Tunnel portal 512 CF, 11) office trailer 3,360 CF, 12) sample prep trailer 2,400 CF, 13) lab trailer 5,760 CF, 14) old wooden powder magazine* 800 CF, 15) UP&L substation at the PTH area, 16) power transformer structure*, and 17) timbered entrance to #2 Tunnel portal.*
**will be demolished by dozer and not calculated by cubic feet cost. The trailers all have wheels attached and will be pulled from property. The timbered entrance at the #2 Tunnel will be pushed into the #2 adit by dozer, and the small cinder block shop at the #3 Tunnel area will be pushed over and hauled to the landfill. The substation and fence will be removed using a UP&L cost estimate. Their last in 1997 was $3,500, the present cost to remove is $5,000.*

### 105.3 - Additional Maps

Reclamation Treatments Map Checklist

Please check off each section to verity these features are included on the map(s) or explain why it is not applicable. Please add the map identification name or number which shows these features.

Check Map ID

_____ (a) Areas of the site to receive various reclamation treatments shaded, cross hatched or color coded to identify which reclamation treatments will be applied. Areas would include: buildings, stationary mining/processing equipment, roads, utilities, proposed drainage improvements or reconstruction, and sediment control structures, topsoil storage areas, waste dumps, tailings or processed waste facilities, disposal areas for overburden, solid and liquid wastes, ponds, and wastewater discharge, treatment and containment facilities. Reclamation treatments may include ripping, regrading, replacing soil, fertilizing, mulching, broadcast seeding, drill seeding, and hydroseeding: _____

_____ (b) A border clearly outlining the extent of the area to be reclaimed after mining, the number of acres disturbed, and the number of acres proposed for reclamation: _____

_____ (c) Areas disturbed by this operation which are included in a request for a variance from the reclamation standards: _____

_____ (d) Highwalls which are proposed to remain steeper than 45 degrees and slopes which are proposed to remain steeper than 3 horizontal : 1 vertical. _____

**Note: Areas included in sections c & d will need to be referenced in the variance request section. Please shade or color code these areas on this map.**

Additional maps and cross sections may be required in accordance with Rule R647-4-105.3. Design drawings and typical cross-sections for each tailings pond, sediment pond, or other major drainage control structures must also be included.

## III. Rule R647-4-106 - Operation Plan

**106.1 - Mineral(s) to be mined**: Pb, Zn, Au, Ag, and Cu and other base metals

**106.2 - Type of Operation Conducted:**

Describe the typical methods and procedures to be used in mining operations, on-site processing and concurrent reclamation. Include equipment descriptions where appropriate.

*The mining operation will be conducted underground via the PTH Tunnel. Ores and waste will be brought to the surface from the PTH portal. The waste will be disposed at the waste dump directly east of the portal; the ores will be shipped to the processing facility which is approximately .75 miles east of the mine. The ores will be crushed by a Cedar Rapids jaw/rolls portable crushing plant. The crushed ore will then be lifted to the final ore bin by a bucket elevator. The final crushed product will then be auger fed into the grinding circuit which includes a 6x9 Marcy Ball mill and a 24'x24" spiral classifier an a fines sump. The fines will be pumped to a series of flotation cells in order to concentrate the lead and zinc ores, the oversize will be diverted back through the grinding circuit. The final concentrate will be thickened in various size thickeners and the thickened concentrate will then be decanted of any moisture with an Eimco disc filtration system. The decanted concentrate will then be bagged in one or two ton bags and shipped to smelters. The processing facility is housed in a 60'x40' x20' w/4' pitch roof by 60'x40' also with a 40'x20' x12' east end addition and a 18'x20'x9' south side attachment, in all comprising 65,640 cubic feet and powered by a 640 KW generator w/D345 12 cylinder "Cat" diesel engine. It has been decided to not include any attachments to the main processing building at this time, nor is the 50x100 building contemplated at this time.. The HMS pre-concentrating facility has been eliminated from this plan. All water used in the process will be recycled back through the process. This water will be clarified in the thickener tanks and in the final tailings pond where the water will be pumped from the top of the pond back to the thickeners. There will be no waste water released to any drainage. The concentrating process is considered a closed circuit. Mill make-up water will come from the fresh water holding pond approx. 600 feet west of the milling facility which is supplied by a buried pipe from Cottonwood Creek. Water from Alunite Springs is not being contemplated at this time. During non-irrigating months (October15 through April 15) water for the holding pond will be drawn from Cottonwood Creek. Unico owns three water well permits. Drilling of these wells on the mine or mill property is not contemplated at this time. The location of these wells have not yet been determined.*
*Mining will be done all under ground with the exception of the processing of the dumps from the upper Deer Trail. The crude ore trammed from the mine will be stacked on a cement pad just below the PTH Tunnel level at the surface where it will be loaded on trucks. The cement will be bermed. This 18'x25'x6" cement pad will be broken up and buried by the material from the re-grading of the PTH dumps at 3:1.*

*It was once proposed to the U. S. Forest Service to locate a portable crushing plant to the PTH area. Since that time it has been determined not to use a crushing plant at the PTH area.*

**106.3 - Estimated Acreage**

Acreage listed here should match areas measured off the maps provided.

| | |
|---|---|
| Areas of actual mining | 0.86 acres |
| Overburden / waste dumps | 2.865 acres |
| Ore and product stockpiles | 2.257 acres |
| Roads | 1.13 acres |
| Associated on-site processing facilities | (included in the ore stock piling acreage) |
| Tailings disposal: present and planned | 0.90 acres |
| Area of operational mine buildings | 0.278 acres |
| Fresh water holding pond | 0.73 acres |
| Area of non-compacted soil injury | 3.79 |
| Other – parking | (included in the mine building acreage) |
| | |
| Total Acreage | 12.81 Acres |

**106.4 - Nature of material including waste rock/overburden and estimated tonnage**

Describe the typical annual amount of the ore and waste rock/overburden to be generated, in cubic yards. Where does the waste material originate? What is the nature of the overburden/wastes (general chemistry/mineralogy and description of geologic origin)? Will it be in the form of fines or coarse material? What are the typical particle size and size fractions of the waste rock?

| | |
|---|---|
| Thickness of overburden: | N/A ft. |
| Thickness of mineral deposit: | underground ft. |
| Estimated annual volume of overburden: | 0 cu. yds. |
| Estimated annual volume of tailings/reject materials: | 25,000cu. yds. |
| Estimated annual volume of ore mined: | 38,000cu. yds.* |

**based on the capacity of the present milling facility*

Overburden/waste description:

*No waste material will generated from the present mining accessed by the PTH Tunnel. This is due to the fact that only ore is contemplated to be mined without any additional development in barren rock. The HMS facility has been eliminated from this plan. The tailings will consist of ground limestone, dolomite and quartzite with minor amounts of Pb and Zn and residual reagents used in the concentrating process. The tailings will average 45 mesh minus and will be stored in a clay and HPDE double lined tailing impoundments. Cyanide will not be used at this time.*

*Re-grading of the portion of the PTH dump that Unico is responsible to reclaim will expand south side of the dump by 20 additional feet, most of the re-graded material will be placed on existing disturbed ground already covered in this plan. 125'x20' (0.057 acres) will be disturbed by re-sloping the southeast potion of the PTH dump. 6" of soil will also be placed on the re-graded dumps.*

## 106.5 - Existing soil types, location of plant growth material

Specific information on existing soils to be disturbed by mining will be required. General soils information may not be sufficient.

*The only soils that will be disturbed during the mining process will be at the upper Deer Trail area where screening of the dumps will be done as outlined in a permit previously submitted and approved by both the Division of Oil, Gas and Mining and the US Forest Service. Soils disturbed and to be disturbed at the milling area will be caused from the installation of the tailings impoundment pond, construction of buildings, and storage areas for waste rock, crude and crushed ores, and bagged concentrate to be re-processed or shipped.*

Provide specific descriptions of the existing soil resources found in the area. Soil types should be identified along with depth and extent, especially those to be directly impacted by mining.

*The area of mining and milling have not had a soil survey completed by the Conservation Service, however, a survey of the area immediately north of the Deer Trail has been surveyed and a soil identity can be determined from the survey. The soil encountered at the milling area is "Hiko Peak cobbly loam", which is described as 35% rock. Thickness of the soils is less than 10 inches. Sub-surface material below the soil is 60% rock and 40% gravel to sand with minor humus.*

**Soils -** The plan shall include an Order 3 Soil Survey (or similar) and map. This information is needed to determine which soils are suitable for stockpiling for revegetation. This soil data may be available from the local Natural Resources Conservation Service office, or if on public lands, from the land management agency. The map needs to be of such scale that soil types can be accurately determined on the ground (see Attachment I).

*See attached photo of the soil survey obtained from USDA Natural Resources Conservation Service office in Richfield, Utah. Please note that this survey is of the area north of the Deer Trail.*

(a) Each soil type to be disturbed needs to be field analyzed for the following:

| | |
|---|---|
| Depth of soil material | less than 10 inches |
| Volume (for stockpiling) | 5,000 CY |
| Texture (field determination | |
| pH (field determination) | |
| (cross reference with item 106.6) | |

(b) Where there are problem soil areas (as determined from the field examination) laboratory analysis may be necessary. Soil samples to be sent to the laboratory for analysis need to be about one quart in size, properly labeled, and in plastic bags. Each of the soil horizons on some sites may need to be sampled. Soil sample locations need to be shown on the soils map. Soil analysis for these

samples should include: texture, pH, Ec (conductivity), CEC (Catoin Exchange Capacity), SAR, % Organic Matter, Total N, Available Phosphorus (as $P_2O_5$), Potassium (as $K_20$), and acid/base potential.

*A sample of the soil from the upper Deer Trail area has been taken and sent for analysis and the findings will be reported when they are known.*

*No problem areas have been identified at either the milling site or the mine site. The soils at either location have never been cultivated and have never been fertilized. Soil suitable for cultivating are not located at either area. The soil make-up of the milling area contain significant amounts of a white powdery aluminum silicate and "clinkers" produced and stacked randomly in the area from the old historical alunite facility.*

**106.6 - Plan for protecting and redepositing existing soils**

Thickness of soil material to be salvaged and stockpiled: less than 10"
Area from which soil material can be salvaged: (show on map) 2.5 acres
Volume of soil to be stockpiled: The soil is in place at the upper deer trail area where a sufficient amount of the soil will be designated with berms and signs for reclamation purposes only.
(cross reference with item 106.5 (a))

Describe how topsoil or subsoil material will be removed, stockpiled and protected.

*All soils if any, will be removed from the milling area and will be stacked in top soil stockpile areas as shown on the 1"=50' map. All soils if any will be moved by front end loader and or dump truck. All stockpiled soils will be seeded to protect them from erosion. Soil to be used for reclamation is located at the upper deer trail area, the product of recent mud flows due to heavy spring run-offs through areas of compromised watershed as a result of the 2002 wild fire on Deer Trail Mountain and surrounding area. This soil contains much decomposed and / or decomposing vegetation, various sized rock, and rich mountain soils. This material covers over 2 acres and averages 8 feet thick, containing approximately 30,000 cubic yards of material suitable for reclamation purposes.*

**106.7 - Existing vegetative communities to establish revegetation success**

**Vegetation** - The Permittee / Operator is required to return the land to a useful condition and reestablish at least 70 percent of the premining vegetation ground cover.

Provide the Division with a description of the plant communities growing onsite and the percent vegetation cover for each plant community located on the site. Describe the methodology used to obtain these values.

*The plant communities that will be disturbed at the mining operation consist of rabbit brush, sage, cheat grass, junipers and mahogany brush. The grass is very sparse. The plant communities at the milling area consist of rabbit brush, sage, cheat grass and junipers (see attached photos).*

The percent ground cover is determined by sampling the vegetation type(s) on the areas to be mined (see Attachment I for suggested sampling methods).

(a) Vegetation Survey - The following information needs to be completed based upon the vegetation survey:

Sampling method used _____

Number of plots or transects (10 minimum) _____

| Ground Cover | Percent |
|---|---|
| Vegetation (perennial grass, forb and shrub cover) | 40 |
| Litter | 0.5 |
| Rock/rock fragments | 25 |
| Bare ground | 34.5 |
| | 100% |

Revegetation Requirement
(70 percent of above vegetation figure) 30 %

Indicate the vegetation community(ies) found at the site.

List the predominant perennial species of vegetation growing in each vegetation community type.

*Sage Brush, Rabbit Brush, cheat grass, juniper trees, mahogany and sparse grasses*

(b) Photographs - The Permittee / Operator may submit photographs (prints) of the site to show existing vegetation conditions. These photographs should show the general appearance and condition of the area to be affected and may be utilized for comparison upon reclamation of the site. Photographs should be clearly marked as to the location, orientation and the date they were taken.

**106.8 - Depth to groundwater, overburden material & geologic setting**

Describe the approximate depth to groundwater in the vicinity of the operation based on the completion of any monitoring or water wells in the area. Please show the location of these wells on the base map.

*There are no wells nearby the facility to base an accurate ground water depth, however based on the sub-surface make-up of the area the ground water would be on a known impervious layer which lies in varying depths in the area.*

Depth to groundwater within 200 as much as 800 ft.

Provide a narrative description of the geology of the area and/or a geologic cross section.

*The mill area is located on an alluvial plain created by Cottonwood Creek. The alluvial is comprised of rock (boulder size to sand). Soil is contained in the first eight inches. The underlying alluvial material is 40% rock 5", 20% larger than 5", and 40% smaller than 5". The ground does not hold water. Any water is quickly drained into the alluvial material.*

**106.9 - Location and size of ore and waste stockpiles, tailings and treatment ponds, and discharges**

Describe the location and size of any proposed waste/overburden dumps, stockpiles, tailings facilities and water storage or treatment ponds.

*Mine waste will be disposed of on the south side of the waste dump at he PTH Tunnel area, as approved by DOGM and the US Forest Service in the most recent permit submitted. The area to be affected by this operation will cover approximately 1 acre. The present tailings impoundment covers 0.90 acres One water storage pond is located west of the mill buildings (as shown on the 1"=1,000" map). It covers an area 184' x 184' and accessed by a 260' x 20' road.*

Describe how overburden material will be removed and stockpiled.

*There will be no overburden removed in this operation.*

Describe how tailings, waste rock, rejected materials, etc. will be disposed of.

*Tailings will be stored in a clay and HDPE double lined impoundment (pond) and will be capped with soil located at the upper deer trail area. The capped tailings will be seeded with the prescribed seed mix. Mine waste rock will be dumped on the south side of he PTH Tunnel dump where it will eventually be reclaimed when the mining of this area is permanently closed.*

Describe the acreage and capacity of waste dumps, tailings ponds and water storage ponds to be constructed. All impoundments must include the necessary hydrologic calculations to determine if they are adequately sized to handle storm events.

*The fresh water holding pond has the capacity to hold 383,000 gallons, it is 80'x80'x8' inside dimension. The present tailings impoundment area is 110'x75'x8 'inside dimension on the east end and 0' on the west end. The pond has the capacity to hold 246,000 gallons. All water that is drained from the mill to the tailing impoundment area will be recycled back through the mill. The tailings pond will never be filled to capacity from the milling operation. At no time will it be allowed for the tailings impoundment to over fill. At the end of operations there will be adequate space left in the tailings impoundment to contain the capping soils to the level of the impoundment dam. Tailings are drained into the impoundment at the dam or dike end of the impoundment allowing the solids to settle next to the dam or dike and thus increasing the thickness of the dam or dike.*

Describe any proposed effluent discharge points (UPDES) and show their location on the surface facilities map. Give the proposed discharge rate and expected water quality. Attach chemical analyses of such discharge if available.

*There will be one effluent discharge from the mill (see 1"=50" map). Proposed discharge rate of 123,000gallons per day is expected. Residual chemicals will consist of any heavy metals not recovered in the milling process, however these metals will be contained in the solids. The other chemicals will be residual reagents used in the process, which will be xanthate, zinc sulphate, copper sulphate, collectors and frothers. Chemicals analyses will be available after start-up of milling operations.*

## IV. R647-4-107 - Operation Practices

During operations, the Permittee / Operator shall conform to the practices listed under this section of the Minerals Rules unless the Division grants a variance in writing.

Describe measures taken to minimize hazards to public safety during mining operations regarding:

the closing or guarding of shafts and tunnels to prevent unauthorized or accidental entry in accordance with MSHA regulations;

*All mine entrances are presently installed with heavy duty steel doors and are locked when not in use. The "E" raise or escape shaft already has a steel door installed over it. Adequate ventilation can still go down this shaft even with this door installed and closed. This allows for more than adequate airflow in the first 4,000 feet of the PTH Tunnel to sustain a bat habitat.*

the disposal of trash, scrap metal, wood and extraneous debris;

*All trash is collected at certain locations on the property and is periodically trucked to the Piute County landfill in Marysvale. Recyclable materials are collected and sold to salvage dealers.*

the plugging or capping of drill, core or other exploratory holes;

*Presently no known holes are located on the surface all drilling to date has been done underground. Although, Unico owns three (3) water well permits there is no plans to drill any of these wells on the mine or mill property covered within this LMO. In the event that exploration drilling is proposed please note, that all such drilling will be submitted under an exploration permit not tied to this LMO. Water well holes drilled within the area of this LMO will be plugged with at least 6 feet of cement from the collar of the hole down.*

the posting of appropriate warning signs in locations of public access to operations;

*All signs as required by MSHA (Mine Safety and Health Administration) will be displayed where they can be read. In addition warning signs will be posted to warn the general public of the potential dangers that are present due to the nature of our*

*operations. Entry on the premises will be by authorized personnel only all others will be required to get authorization before entering the property.*

the construction of berms, fences or barriers above highwalls or other excavations.

*Berms, fences and other barriers will be installed on a needs basis. Ponds will be fenced and entry to the pond areas will only be permitted by personnel wearing protective flotation gear. We do not contemplate highwalls with our operation. Berms bill be constructed on all roads with steep embankments as required by MSHA. The ponds proposed (fresh water holding and tailings ponds) in this LMO will be fenced with standard 6" square field fence in order to preclude entry of unauthorized personnel and wildlife. These fences will be six feet (6') high.*

If any of these safety measures are unnecessary, please explain why.

Describe measures taken to avoid or minimize environmental damages to natural drainage channels which will be affected by this mining operation.

*The road west of the mill area crosses Cottonwood Creek, it is proposed to place two 48" culverts in the drainage in order bridge Cottonwood Creek and prevent any damage that may be caused by our crossing this drainage.*

*The milling process is considered a closed circuit system, meaning the water used in the operation will be recycled and no water will be released to any drainage. The mining operation at present does not bring any water to the surface.*

Describe measures taken to control and minimize sediment and erosion on areas affected by this mining operation. Describe measures being taken to prevent sediment from leaving the disturbed area.

*Sediment produced at the milling operation will be contained in the tailing impoundments. No sediments will be produced from the mining operation, however, erosion of the mine waste dump will be minimized with seeding programs, contouring and proper placement.*

Identify any potentially deleterious materials that may be stored on site (including fuel, oil, processing chemicals, etc.) and describe how they will be handled and stored.

*Diesel fuel is stored in an approved fuel tank and any leaks that should occur will be contained in an area Immediately below the tank by the placement of an impervious material designed to contain diesel spills. Process reagents such as xanthate, zinc sulphate, copper sulphate, cyanide, chlorine, collectors and frothers will be stored in storage trailers an in the mill buildings and kept secure behind gated areas. A 40'x40' gated fenced area will be erected to secure the reagent storage trailer. This fence will be pulled down and hauled off. Oils and other chemicals will be located in secure areas within the mill building and clearly labeled. All chemicals used and stored on site does have an MSDS on file and all personnel are or will be trained on the proper handling of each of the chemicals. All spills will be duly reported and cleaned-up and properly disposed of. All chemicals used and stored on the property are also listed on MSHA hazardous materials forms on file at the site.*

Describe the measures taken to salvage and store soils to be used in reclamation.

*Due to the shallow nature of the pre-mine soil in the area of the mill facility all soil to be used for reclamation purposes will come from the soil in place at the upper deer trail area as described in 106.6 of this LMO.*

Describe how stockpiled topsoil will be protected from erosion and further impact.

*See above answer.*
*The soil proposed to be used for reclamation is naturally in place at the upper deer trail area and portions of that soil in sufficient enough quantities to cover all reclamation needs. This area will be identified and signed for reclamation use only.*

Please describe any reclamation to be done during active mining operations prior to final closure. Reference these areas on a map.

*Once the tailing impoundment has reached a point that it will no longer be able to contain tailings it will be allowed to dry then be capped and seeded. As the mine dumps from upper Deer Trail are moved and put through the screening process the areas once occupied by the dumps will be contoured, scarified and seeded.*

## V. Rule R647-108 - Hole Plugging Requirements

All drill holes which will not eventually be consumed by mining must be plugged according to the methods listed in this section. Describe the location of any aquifers encountered by drilling and the method to be used to plug such water containing holes. Describe the method to be used for plugging holes not containing water.

*As mentioned above, all holes not consumed by mining will be plugged by either plugging the hole with at least 6 feet of cement. Any exploration drilling will be covered under a separate exploration permit and not tied to this LMO.*

## VI. Rule R647-109 - Impact Statement

### 109.1 - Surface and groundwater systems

Describe impacts to surface or groundwater which could be caused by this mining operation. Describe how these impacts will be monitored and mitigated. The appropriate groundwater and stormwater control permits need to be obtained from the Division of Water Quality. Please reference any such permits.

*Possible impacts to ground water from this operation could come from a possible breach of the tailing impoundment dam or a puncture of the lining of the tailing Impoundment. The water levels of the tailings impoundment will be constantly monitored in order to detect any leak(s). The springs that are down stream from our operations will be tested on a regular basis to detect the presence of any chemicals or heavy metals that could be linked to our operations. Likewise, the waters that are upstream from our operations will also be tested on a regular basis I order to detect*

*the presence of chemicals, heavy metals etc. caused by nature or by other operations that may exist upstream form our operations. Any irregularities will be promptly reported to the appropriate agency(s). Mitigation of such an event will require operations to cease until the problem is corrected. Any release of hazardous materials into the groundwater system or surface water will be quickly stopped and measures taken to neutralize the release. Any downstream occupants would be notified of any such release. Department of Water Quality permit can be seen in the appendix of this LMO.*

**109.2 - Wildlife habitat and endangered species**

Describe the impacts on wildlife habitat associated with this operation. Describe any impacts to big game species found in the area. Describe any impacts to riparian areas. Describe any impacts this operation will have on waterfowl (fly-over, temporary resident or permanent resident). List any threatened or endangered wildlife species found in the area. Describe impacts to threatened or endangered species and their habitats. Describe measures to be taken to minimize or mitigate any impacts to wildlife or endangered species.

*Wildlife could be impacted if they were to drink from the tailing impoundment waters. The tailings will be fenced to prevent wildlife from gaining access to the tailings. The tailings will be sampled on a regular basis t detect the presence of dangerous substances that may exceed limitations. Process corrections will be made to minimize the release of any such substances in the event quantities are deemed too high. The fence surrounding the tailings area will be six feet (6') high.*

**109.3 - Existing soil and plant resources**

Describe impacts to the existing soil and plant resources in the area to be affected by mining operations. Describe impacts to riparian or wetland areas which will be affected by mining. Describe impacts to threatened or endangered plant species. Describe measures to be taken to minimize or mitigate any impacts to soil and plant resources.

*The existing soil at the mill is very shallow and very rock however it does sustain cheat grass, rabbit brush, sage brush and junipers. There is not enough soil to hold much water. Vegetation is sparse. There are no wetlands that will be effected by our operations nor will it effect riparians. The vegetation that is disturbed by our operations will be impacted by equipment drive-over, such as a dozer, front end loader, or truck, not by effluents and or spills. When operations cease and are closed indefinitely the soils that are located in place at the upper deer trail area will be excavated and transported to the areas needed, comprising 3.138 high impact acres. In order to cover this area with at least 10", 4,200 CY of soil is needed Other areas where only minor disturbance to the surface and vegetation has taken place measures to heal the injured soils will be take place such as scarifying, mulching with manure and seeding, comprising 4.266 acres which will receive up to 2" of soil if needed. In order to cover this area 1,100 CY of soil will be needed.*

### 109.4 - Slope stability, erosion control, air quality, public health & safety

Describe the impacts this mining operation will have on slope stability, erosion, air quality, public health and safety. Include descriptions of highwall and slope configurations and their stability. Air quality permits from the Utah Division of Air Quality may be required for mining operations. Please reference any such permits. Describe measures to be taken to minimize or mitigate impacts to slope stability, erosion, air quality, or public health and safety.

*The mining operations will be conducted underground and no plans have been made nor contemplated to any surface mining other than to re-work the tailings and dumps at the upper Deer Trail mine. The proper Air Quality permit has been issued for this operation, please see the appendix.*

**109.5** Measures to Mitigate Impacts

*The impacts and loss of soil resources will be mitigated by importing soil materials that were deposited near the site during recent flood/mud flow events from recently burned areas above the mine site. While it is believed that this material is suitable, a sample has been taken and will be sent for testing (lab analysis) to demonstrate the suitability of this material to be used to mitigate the areas described below.*

| Area | Acreage and Depth | Volume(yds3) |
|---|---|---|
| PTH Area | 3.1 acres @ 6"depth | 2,500 |
| Road to Upper Deer Trail | 1.0 acres @ no add soil | 0 |
| Upper Deer Trail Area | 0.86 acres @ no add soil | 0 |
| Screened dump material | 0.25 acres @ 10" depth | 322 |
| Road to fresh water pond | 0.13 acres @ no add soil | 0 |
| Fresh water pond | 0.73 acres @ 2" soil | 200 |
| Mill Area | 3.20 acres @ 10" soil | 4,300 |
| Mill Area | 3.79 acres @ no add soil | 0 |
| TOTAL (soil volume needed for reclamation) | | 7,322 |

## VII. Rule R647-4-110 - RECLAMATION PLAN

### 110.1 - Current land use and postmining land use

Current or premining land use(s) [other than mining]:

*The pre-mining land use is best described as sparse grazing for wildlife and domestic animals. Also,used as access to an electrical switching station owned and operated by Utah Power and Light Company and irrigation controls on Cottonwood Creek.*

List future post-mine land-use(s) proposed:
Once all operations have ceased and the area has been reclaimed as outlined in this LMO and subsequent amendments to it, no plans have been made at this point.

(Develop the reclamation plan to meet proposed post-mine land use.)

**110.2 - Reclamation of roads, highwalls, slopes, leach pads, dumps, etc.**

Describe how the following features will be reclaimed: roads, highwalls, slopes, impoundments, drainages and natural drainage patterns, pits, ponds, dumps, shafts, adits, 8 drill holes and leach pads. Describe the configuration of these features after final reclamation. Describe the rinsing and neutralization of leach pads associated with final decommissioning.

Describe how roads will be reclaimed. Road reclamation may include: regrading cut and fill sections, ripping the road surface with a dozer, topsoil replacement, construction of water bars, construction of traffic control berms or ditches, and reseeding.

*At present al roads used in our operation were roads that existed prior to our operations. We have made improvements to those roads by re-grading, filling, and widening where needed. At the permanent closure of our operations only the portions of the roads that were widened will be pulled back in and those widened sections will be roughed with a track hoe and broadcast seeded.*

Describe how highwalls will be reclaimed. Highwall reclamation may include: drilling and blasting, backfilling, regrading, topsoil replacement, and reseeding.

*Our mining operations are underground and we do not contemplate any open-pit methods at the present time. No highwalls exist at the upper deer trail dump areas.*

Describe how slopes will be reclaimed. Slope reclamation may include: regrading to a 3 horizontal: 1 vertical (3h:1v) configuration, topsoil replacement, contour ripping, pitting, and reseeding.

*The slopes of the south side and part of the east facing PTH waste dump will be configured to 3h:1v and 6" of soil from the upper deer trail area will be placed on the reconfigured slope and broadcast seeded with the recommended seed mix. The estimated amount of soil for this activity is 1,111 CY. The area covered is 36,000 square feet or 0.827 acres. This operation will displace 14,850 CY of material.*

Describe how impoundments, pits and ponds will be reclaimed. Include the final elevations and final disposition of the drainage in and around the impoundment. If the impoundment, pit, or pond is intended to be left as part of the post-mining land use, then an agreement with the land managing agency/owner is required. Structures to remain must be left in a stable condition.

*The liner in the fresh water holding pond will be removed and the pond filled back in with the present dam material and capped with 2" of soil of the soil from the upper deer trail area set aside for reclamation. The estimated amount of soil need is 200 CY and covering an area of 33,850 square feet or 0.73 acres. The tailing impoundment area (pond) will be capped with topsoil and seeded, the final elevation of the impoundment will not exceed anymore than two feet of the existing impoundment*

*dam. The construction of the tailings impoundment was approved by the Division of Water Quality and their guidelines and requirements were met. The tailings will be contained in a clay and HDPE double lined base and will be allowed to adequately dry and then capped with at least ten inches (10") of the soil from the upper deer trail area set aside for reclamation. The estimated amount of soil needed is 1,205 CY covering 39,204 square feet or 0.90 acres.*

Include the final size of the impoundment, pit, pond in acre-feet of storage and the capacity of the spillway to safely pass storm events.

*The final size of the fresh water holding pond is 80' x 80' inside dimension. The in-flow of water into this pond is regulated from its source. The pond level will be regulated by a float valve system and will not allow the pond to fill to over half full, allowing space for storm events. The tailings impoundment pond is equipped with a large capacity floating pump that can be actuated to take off any excess water caused by storm events. The excess water will be pumped back to the make-up water tank in the mill building. Excess water from the make-up water tank will be diverted to a 6,500 gallon by a 4" collapsible hose which is stored in the mill building.*

Impoundments, pits, and ponds, which are not approved as part of the post mining land use shall be reclaimed, free draining, and the natural drainage patterns restored.

Describe how drainages will be reclaimed. Drainage reclamation would include: the reestablishment of a natural drainage pattern which fits in with the upstream and downstream cross-section of existing drainage in the vicinity of the disturbance; the reestablishment of a stable channel in the reclaimed reach of channel, using the necessary armoring to prevent excessive erosion and downstream sedimentation.

*Our operations do not disturb any natural drainage.*

Include cross-sections and profiles of reestablished channels to demonstrate compatibility with existing drainage characteristics.

Describe how waste dumps will be reclaimed. Waste dump reclamation may include regrading to a 3h:1v configuration, topsoil replacement, mulch or biosolids applications, contour ripping or pitting, and reseeding. Characterization of the physical and chemical nature of the waste dump materials should be provided.

*Waste dumps are located at the PTH Tunnel, the upper Deer Trail. The HMS facility has been eliminated from this plan. The dumps at he PTH area will be re-configured, to 3h: 1v slope, displacing 14,850 CY of material. Composted manure will be distributed on the slopes of the dumps and broadcast seeded with the proper seed mix. As described above in section 110.2. The chemical nature of the waste dump does have some sulfides; however there is an overall abundance of limestone in the dump that neutralizes the acid formed from the sulfides. This dump has existed for over fifty years and there no evidence of acid drainage at all. All mineralized materials mined from our operations will be sent to the milling facility where it will concentrated. The dumps at the upper Deer Trail will be screened and the screened material will be placed in one central dump and that dump terraced at 3h: 1v slope. 10" of soil from*

*the adjacent soil set aside for reclamation will be placed on the newly terraced dump and then will be seeded.*

Describe how shafts and adits will be reclaimed. Reclamation of shafts may include: backfilling, installation of a metal grate, installation of a reinforced concrete cap, topsoil replacement and reseeding. Reclamation of adits may include: backfilling, installation of a block wall, installation of a metal grate, topsoil replacement and reseeding.

*All shafts will be covered with reinforced steel grates that will allow for bat entry. All adits and tunnel like wise will be closed with bat grating, except for the No. 2 Tunnel which will be pushed in and closed with the portal timbers and existing soils adjacent to the portal. Mine rails will be left underground. Any track on the surface will be taken up and hauled away with the debris of the demolished buildings. The mine buildings will be knocked down and hauled to the local landfill in Marysvale as approved by the U.S. Forest Service. The areas once occupied by buildings, the tracks and the electrical substation will be covered with soil from the upper deer trail area set aside for reclamation and seeded with the recommended seed mix. The estimated amount of soil needed is 790 CY covering 25,600 square feet or 0.588 acres.*

Describe how drill holes will be reclaimed. Drill hole reclamation must be consistent with the rules for plugging drill holes (R647-4-108). Reclamation of plugged drill holes may include topsoil replacement and reseeding.

*All drill holes on the surface will be capped with six feet of cement. The area will be cleaned of all oil spills and trash. The area will be re-contoured and scarified and seeded. It should be noted that any exploration holes will be covered by a separate exploration permit not tied to this LMO.*

Describe how tailings areas will be reclaimed. Tailings reclamation may include: dewatering, neutralization, placement of cap materials, placement of subsoil materials, topsoil replacement and reseeding. Characterization of the physical and chemical makeup of the tailings material should be provided.

*(Answered above on page 17 in 110.2)*

Describe how leach pads will be reclaimed. Reclamation of leached materials may include: neutralization or leached materials, rinsing of leached materials, dewatering leached materials, regrading slopes of leached materials to 3h:1v, extending pad liners, placement of capping materials, placement of subsoil materials, mulch or biosolids application, topsoil replacement and reseeding. Characterization of the physical and chemical makeup of the leached materials should be provided. Post closure monitoring and collection of drain down fluids should also be addressed.

*We do not contemplate using leach pads with our operations.*

NOTE: The Minerals Rules require overall highwall angles of no more than 45° at final reclamation unless a variance is granted. All dump or fill slopes should be left at an angle of 3h:1v or less. Any slopes steeper than 3h:1v must be reclaimed using state-

of-the-art surface stabilization technology. Pit benches exceeding 35 feet in width should be topsoiled, or covered with fines, and re-vegetated.

*Unico's operations will not employ the use of highwalls.*

Describe the final disposition of any stockpiled materials on site at the time of final reclamation.

*We do not contemplate leaving any stockpiled materials on the site at the time of final reclamation. All ores will be milled, concentrated and shipped.*

**110.3 - Surface facilities to be left**

Describe any surface facilities which are proposed to remain on-site after reclamation (buildings, utilities, roads, drainage structures, impoundments, etc.). Describe their post-mine application. *Justification for not reclaiming these facilities must be included in the variance request section.*

*Most roads were pre-existing, small sections of these roads have been widened and those widened sections will be reclaimed. An access road (260' x 20') to the fresh water holding pond will also be reclaimed by scarifying and seeding. No buildings, utilities, drainage structures, and impoundments will be left behind or un-reclaimed. The cement in the mill building will be broken up and buried on site.*

**110.4 - Treatment, location and disposition of deleterious materials**

Describe the nature and extent of any deleterious or acid forming materials located on-site. Describe how these materials will be neutralized, removed, or disposed of on site. Describe how buildings, foundations, trash and other waste materials will be disposed of.

*The acid forming minerals in the tails will be contained in a clay and HDPE double lined impoundment and capped with at least 10" of soil from the Upper Deer Trail are set aside for reclamation. Other wastes generated by our operations are periodically hauled to the Piute County landfill in Marysvale. Used oil from the equipment will be contained in labeled containers and deposed at used oil recycling drop-off stations located throughout the state. Buildings at the PTH area will be demolished and hauled away as approved by the U. S. Forest Service. Any cement foundations will be cleaned of any hazardous materials and those materials will be put in labeled containers to be disposed of at an approved landfill. The cement will be broken and hauled away with the buildings. Left over and compromised reagent bags or drums will be containerized in oversized drums or bags (re-packed) and disposed of in an approved land fill.*

**110.5 - Revegetation planting program and topsoil redistribution**

Describe the revegetation tasks to be performed in detail. For example, will ripping, mulching, fertilizing, seeding and scarifying of these areas be performed and if so, how will this be accomplished? Correlate this information with the Reclamation Treatments Map.

*See map for areas to be re-vegetated. Most surface impacted our operations will be covered with at least 10" of soil and seeded by broadcast method. The soil to be used for this activity will come from the upper deer area from in place soil set aside for reclamation. Other areas that are impacted less will be ripped and seeded. The portion of the PTH waste dump Unico is responsible for will be re-configured to 3h: 1v and spread composted manure and 6" of soil and seeded. This area includes the disturbance south of the dump both the dump and area south is 23,000 CF or 0.528 acres.*

a) Soil Material Replacement

In order to reestablish the required ground cover, one to two feet (depending on underlying material) of suitable soil material usually has to be redistributed on the areas to be reseeded. If the stockpiled soil isn't sufficient for this, soil borrow areas will need to be located.

*See above answer The soil to be used for reclamation is located at the upper deer trail area (see air photo and map).*

Describe the volume of soils and approximate depth of soil cover to be used in reclamation. Describe the source of these soils and provide an agronomic analysis of the soils. If soils will not be used describe the alternative material or amendments to be applied in lieu of soils. Describe the methods used to transport and place soils.

*See the above comments in this section.*

b) Seed Bed Preparation

Describe how the seedbed will be prepared and equipment to be used.
The Division recommends ripping or discing to a minimum of 12 inches and leaving the seed bed surface in as roughened condition as possible to enhance water harvesting, erosion control and revegetation success. Compacted surfaces such as roads and pads should be deep ripped a minimum of 18 inches.

*Caution will be used in how in prepping the soil for seed because of the shallow nature of the existing soil. Deep ripping of the surface to a minimum of two feet (2') to remove compaction that may have occurred during course of the operations.*

c) Seed Mixture - List the species to be seeded:

Provide a seed mix listing adaptable plant species and the rate of seeding that will be used at the site for reclamation. More than one seed mix may be needed, depending upon the areas to be reclaimed. Keep the proposed post-mining land use in mind when developing seed mixes.

**Example**

*(See attached sheet prepared by Division of Oil, Gas and Mining) The seed mix and recommended method is attached to this LMO, this seed mix and method is approved by the U.S. Forest Service as well as the Division of Oil, Gas and Mining.*

(The Division recommends seeding 12-15 lbs./acre of native and introduced adaptable species of grass, forb, and browse seed for drill seeding and 15-20 lbs./acre for broadcast or hydro seeding. The Division can provide assistance in developing reclamation seed mixes if requested).

d) Seeding Method

Describe method of planting the seed.
The Division recommends planting the seed with a rangeland or farm drill. If broadcast seeding, harrow or rake the seed 1/4 to 2 inch into the soil. Fall is the preferred time to seed.

*To be determined Broadcast seed method. Plowing with the hoe bucket will harrow the soil sufficient enough for a seed bed.*

e) Fertilization

Describe fertilization method, type(s) and application rate (if needed).

*To be determined*

f) Other Revegetation Procedures

Please describe other reclamation procedures, such as mulching, biosolids application, irrigation, hydroseeding, etc., that may be planned.

*To be determined Composted manure will be used to heal injured soil and on the PTH re-graded waste dump.*

**R647-4-111 – Reclamation Practices**

**111.2 Reclamation of natural channels**
*At the closure of operations the two (2) 48" culverts placed in Cottonwood Creek will be removed and hauled from the site.*

VIII. **Rule R647-4-112 VARIANCE**

The Permittee / Operator may request a variance from Rules R647-4-107 (Operation Practices), R647-4-108 (Hole Plugging), and R647-4-111 (Reclamation Practices) by submitting the following information:

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1.11 the rule(s) which a variance is requested from; (rule number and content)

1.12 a description of the specific variance requested and a description of the area affected by the variance request; show this area on the Reclamation Treatments Map(s).

1.13 justification for the variance;

1.14 alternate methods or measures to be utilized in the variance area.

Variance requests are considered on a site-specific basis. For each variance requested, attach a narrative which addresses the four items listed above.

## IX. Rule R647-4-113 - SURETY

A Reclamation surety must be provided to the Division prior to final approval of this application. In calculating this amount, include the following major tasks:

1) Clean-up and removal of structures.
2) Backfilling, grading and contouring.
3) Soil material redistribution and stabilization.
4) Revegetation (preparation, seeding, mulching).
5) Safety gates, berms, barriers, signs, etc.
6) Demolition, removal or burial of facilities/structures, regrading/ripping of facilities areas.
7) Regrading, ripping of waste dump tops and slopes.
8) Regrading/ripping stockpiles, pads and other compacted areas.
9) Ripping pit floors and access roads.
10) Drainage reconstruction.
11) Mulching, fertilizing and seeding the affected areas.
12) General site clean up and removal of trash and debris.
13) Removal/disposal of hazardous materials.
14) Equipment mobilization.
15) Supervision during reclamation.

To assist the Division in determining a reasonable surety amount, please attach a reclamation cost estimate which addresses each of the above steps. The areas and treatments included in the reclamation treatments map should correspond with items included in the reclamation cost estimate. The reclamation costs used by the Division must be third party costs.

RECLAMATION SURETY ESTIMATE
Unico Incorporated — last revision 05/24/05
Deer Trail Mine & Mill — filename M031-003.xls
DOGM file Number M/031/003 — Piute County
Prepared by Utah State Division of Oil, Gas & Mining (DJ)

*** Bond has been amended to include additional structures at the site (fine ore bin & upstairs annex)
(Itemized estimate under separate cover)

No other changes made to the bond - bond escalation date remains 2009

**Note: actual unit costs may vary according to site conditions** — last unit cost update 10/07/02
**-Amount of disturbed area which will receive reclamation treatments =** 12.81 **acres**
**-Estimated total disturbed area for this mine =** 13.81 **acres**

| Activity | Quantity | Units | $/unit | $ | Note |
|---|---|---|---|---|---|
| Safety gates, signs, etc. (6 signs & 2 gates) | 1 | lump sum | 1600 | 1600 | (1) |
| Demolition of buildings and facilities | 65640 | cf | 0.26 | 17066 | (2) |
| Demolition of other buildings and structures | 16 | hours | 246 | 3936 | |
| ***Demolition of fine ore bin | 1 | lump sum | 12900 | 12900 | |
| ***Demolition of upstairs annex | 1 | lump sum | 3300 | 3300 | |
| Removal & burial of ball mill floor & pedestal (dozer) | 10 | hours | 246 | 2460 | |
| Removal of site fences | 25 | hours | 15 | 375 | |
| Debris & equipment removal - trucking | 18 | trips | 55 | 990 | (3) |
| Debris & equipment removal - dump fees | 0 | ton | 60 | 0 | (4) |
| Debris & equipment removal - loading trucks w/FE loader | 15 | hours | 180 | 2700 | (5) |
| Demolition & debris removal - general labor | 80 | hours | 15 | 1200 | (6) |
| Construct bat gate at PTH portal | 3 | lump sum | 1500 | 4500 | |
| Regrading facilities areas (2 ft depth) | 3 | acre | 613 | 1839 | (7) |
| Regrading waste dump slopes | 14850 | CY | 0.6 | 8910 | (8) |
| Ripping waste dump tops | 1 | acre | 246 | 246 | (9) |
| Ripping stockpile & compacted areas | 6.65 | acre | 246 | 1636 | (9) |
| Ripping access roads - dozer | 0.5 | acre | 246 | 123 | (9) |
| Regrading access roads - dozer | 0.5 | acre | 246 | 123 | (9) |
| Removal of water tank at PTH portal (dozer) | 2 | hours | 246 | 492 | (9) |
| Recontour fresh water pond | 3 | hours | 246 | 738 | (9) |
| Removal of power lines | 12 | hours | 15 | 180 | |
| Removal of substation (UP&L cost quote) | 1 | lump sum | 5000 | 5000 | |
| Remove culverts | 8 | hours | 246 | 1968 | |
| Remove fresh water pond liner | 3 | hours | 15 | 45 | |
| Remove reagent trailer fence | 3 | hours | 15 | 45 | |
| Trackhoe for access road reduction | 4 | hours | 246 | 984 | |
| FEL to load replacement soil | 40 | hours | 180 | 7200 | |
| Truck transport soil to mill site | 293 | trips | 55 | 16115 | |
| Topsoil redistribution- dozer | 7322 | CY | 0.58 | 4247 | (12) |
| Composted manure (10 ton/acre) | 7.609 | acre | 300 | 2283 | (00) |
| Broadcast seeding | 13.81 | acre | 240 | 3314 | (00) |
| General site cleanup & trash removal | 12.81 | acre | 50 | 641 | (00) |
| Equipment mobilization | 4 | equip | 2000 | 8000 | (00) |
| Reclamation supervision (10% of surety estimate) | | | | 11515 | (15) |
| | | | Subtotal | 126671 | |
| 10% Contingency | | | | 12667 | |
| | | | Subtotal | 139338 | |
| Escalate for 5 years at 2.59% per year | | | | 19003 | |
| | | | Total | 158341 | |
| | Rounded surety amount in year 2009 $ | | | 158300 | |
| Average cost per disturber acre = | 11466 | | | | |

*Unico has two reclamation bonds in place at the present time covering the 10 acres. 5 acres located at the mining sites, PTH and upper Deer Trail $19,500. 5 acres at the mill site, $19,000. Totaling $38,600 for both areas. The present proposed disturbance is for 12.81 acres.*

X. **PERMIT FEE [Mined Land Reclamation Act 40-8-7(i)]**

The Utah Mined Land Reclamation Act of 1975 [40-8-7 (I)] provides the authority for the assessment of permitting fees. Commencing with the 1998 fiscal year (July 1 - June 30), **and revised July 1, 2002,** annual permit fees are assessed to new and existing notices of intention and annually thereafter until the project disturbances are successfully reclaimed by the Permittee / Operator and released by the Division.

***Large mining permits require an initial submission fee and annual fee of $500.00 for surface disturbance of 50 or less acres, or a $1,000.00 fee for surface disturbance greater than 50 acres (see page six Section III, Rule R647-4-106.3 for estimated disturbance calculation). The appropriate fee MUST accompany this application or it cannot be processed by the Division.***

*PLEASE NOTE: If you are expanding from a small mining operation to a large mining operation, the appropriate large mine permit fee, less the annual $150.00 small mine fee (if already paid) MUST accompany this application.*

XI. **SIGNATURE REQUIREMENT**

I hereby certify that the foregoing is true and correct. **(Note: This form must be signed by the owner or officer of the company/corporation who is authorized to bind the company/corporation).**

Signature of Permittee / Operator/Applicant: _____

Name (typed or print): V. Dan Proctor

Title/Position (if applicable): Projects Mgr

Date: 01/18/2005

PLEASE NOTE:

Section 40-8-13(2) of the Mined Land Reclamation Act provides for maintenance of confidentiality concerning certain portions of this report. Please check to see that any information desired to be held confidential is so labeled and included on separate sheets or maps.

Only information relating to the location, size or nature of the deposit may be protected as confidential.

Confidential Information Enclosed: () Yes (x ) No

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## Attachment I

### Vegetation Cover Sampling

Vegetation cover sampling determines the amount of ground that is covered by live vegetation. It is divided into four categories which equal 100 percent. They are:

Vegetation - This is the live perennial vegetation. Care should be taken to avoid sampling in disturbed areas that have a large percentage of annual or weedy vegetation, such as cheatgrass and russian thistle.

Litter - This is the dead vegetation on the ground, such as leaf and stem litter.

Rock/rock fragments - This is the rock and rock fragments on the soil surface.

Bare ground - This is the bare soil which is exposed to wind and water erosion.

**Cover Sampling** - The following methods are acceptable:

Ocular Estimation

This method visually estimates the percentage of ground covered in a plot by the four components. Plot size is usually a meter or yard square or a circular plot 36 inches in diameter. Ten to twenty plots should be randomly sampled in each major vegetation type.

Line Intercept

Percent ground cover is obtained by stretching a tape measure (usually 100') over the ground and then recording which of the four components is under each foot mark. At least ten of these transects should be randomly laid out and measured in each major vegetation type.

### Soil Survey and Sampling Methods

If a Natural Resource Conservation Service or land management agency soil survey is not available, the Permittee / Operator shall delineate all soil types that will be disturbed by mining on a map. Each soil type shall be sampled for its characteristics and inherent properties. Representative sampling locations should have similar geologic parent material, slopes, vegetative communities and aspects. The sampling locations should be representative of the soil type and be identified on the map. Sampling shall be at a minimum of one for each soil type disturbed.

The soil map needs to be of sufficient scale so that each soil type can be accurately located on the ground.

Recommended Revegetation Species List
for

**Unico, Inc.**
**Deer Trail Mine**
M/031/003

Prepared 4/01

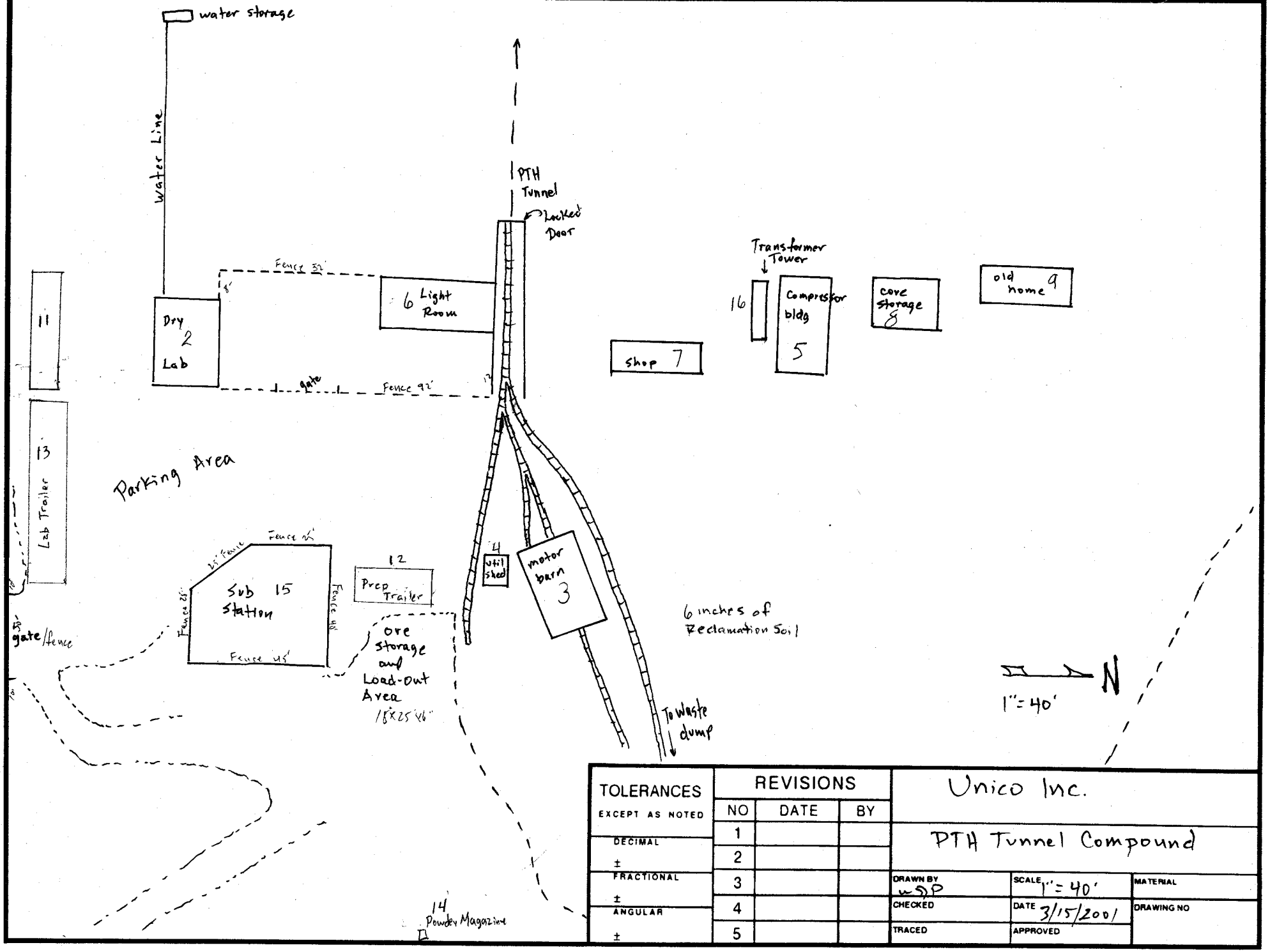
| Common Name | Species Name | *Rate lbs/ac (PLS) |
|---|---|---|
| 'Durar' hard fescue | Festuca ovina 'durar' | 2.0 |
| 'whitmar' bluebunch wheatgrass | *Agropyron spicatum 'whitmar'* | 3.0 |
| 'Piute' orchard grass | *Dactylis glomerata* | 0.5 |
| 'Hycrest' crested wheatgrass | *Agropyron cristatum 'hycrest'* | 1.0 |
| Basin wildrye | *Elymus cenerius* | 2.0 |
| 'Ladac' alfalfa | *Medicago sativa 'ladac'* | 1.0 |
| Yellow sweetclover | *Melilotus officinalis* | 0.5 |
| Palmer penstemon | *Penstemon palmeri* | 0.5 |
| Small burnet | *Sanguisorba minor* | 2.0 |
| Annual ryegrass | *lolium ssp.* | 2.0 |
| Mountain mahogany | *Cercocarpus ledifolius* | 1.0 |
| Mountain big sagebrush | *Artemisia tridentata vaseyana* | 0.1 |
| Bitterbrush | *Purshia tridentata* | 1.0 |
| Rabbitbrush | *Chrysothamnus nauseosus* | 0.2 |
| Forage kochia | *Kochia prostrata* | 0.5 |
| | Total | 17.3 lbs/ac |

*This the recommended broadcast seeding rate.

APPROVED

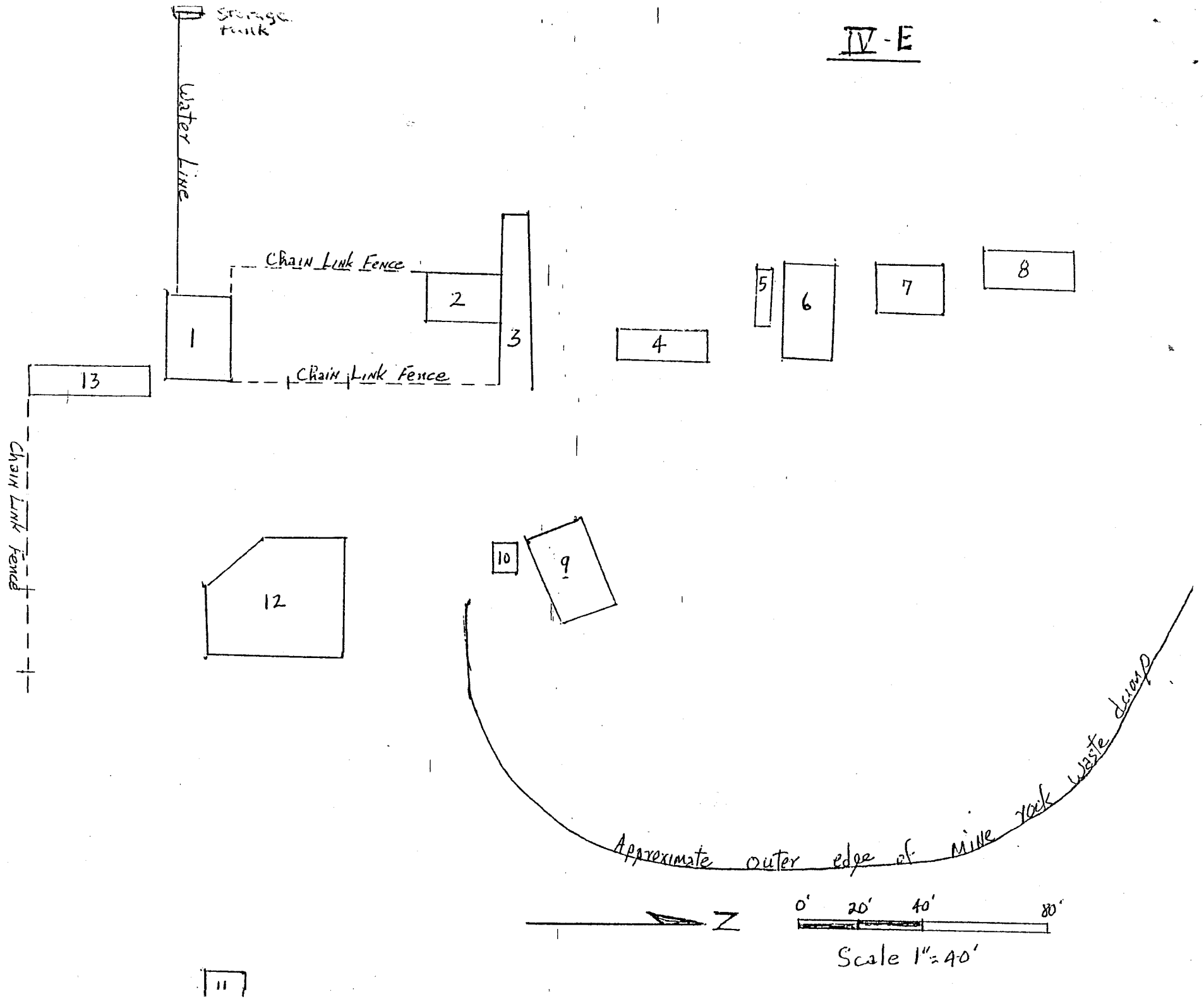
FEB 11 2005

DIV. OIL GAS & MINING




| TOLERANCES | REVISIONS | | | Unico Inc. | | |
|---|---|---|---|---|---|---|
| EXCEPT AS NOTED | NO | DATE | BY | | | |
| DECIMAL ± | 1 | | | PTH Tunnel Compound | | |
| FRACTIONAL ± | 2 | | | | | |
| ANGULAR ± | 3 | | | DRAWN BY WSP | SCALE 1"=40' | MATERIAL |
| | 4 | | | CHECKED | DATE 3/15/2001 | DRAWING NO |
| | 5 | | | TRACED | APPROVED | |

IV-E


Storage tank
Water line
Chain Link Fence
Chain Link Fence
Chain Link Fence
1
2
3
4
5
6
7
8
9
10
11
12
13
Approximate outer edge of mine rock waste dump
N
0'
20'
40'
80'
Scale 1"=40'

## IV - E. STRUCTURES

All of the structures listed below have a near proximity to the PTH mine operation and are all used and needed for the proposed exploration and mining project. This need includes the power lines running from the transformer station (Refer to No.12, below) to the "E" Raise where the lines are taken underground.

1. Cinder Block with Concrete Floor.
   Change/Shower/Restroom Building - Required by OSHA

2. Tin Exterior with Concrete Floor.
   Machine Shop/Parts

3. Tin Covered Shed
   Covering Mine Portal

4. Tin Covered Building
   Supply Storage - includes 50 gal drums of oil, and lubricants, drill machines

5. Transformer Platform
   Supplies power needs to compressors and shop areas.

6. Tin Covered with Concrete Floor
   Compressor Building - houses the mine compressors.

7. Tin Covered Building
   Machine parts storage.

8. Wooden Structure (two rooms) with Wood Floor
   Office area and drill core/sample storage

9. Tin Covered Building with Concrete Floor
   Storage of electric trammer motors and mine lights charging facility.
   Small parts workshop.

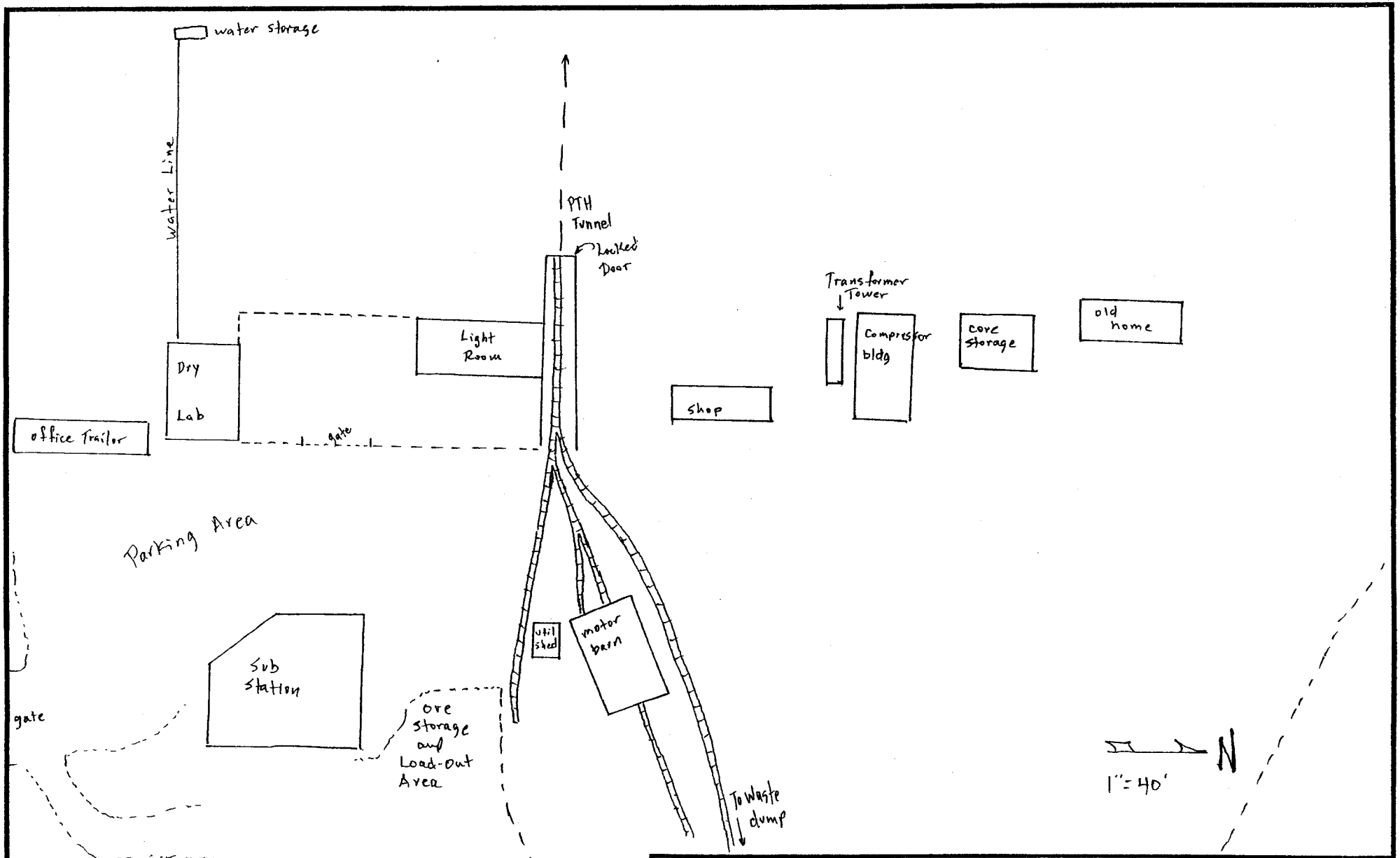
10. Tin Covered Shed
    Contains the generator for charging motors and lights.

11. Tin and Wood Structure (heavy construction)
    For security storage.

12. Transformer Station - Surrounded by High Chain Link Fence
    Supplies power to the entire mine operation (Surface and Underground).

13. 10' x 40' Mobile Trailer
    This facility will likely become the main mine office with telephone, mapping facilities, computer center.

14. Water Storage Tank
    Supplies water for personal hygiene use and as a first effort against possible fire occurrence.




| TOLERANCES | REVISIONS | | | Unico Inc. | | |
|---|---|---|---|---|---|---|
| EXCEPT AS NOTED | NO | DATE | BY | PTH Tunnel Compound | | |
| DECIMAL ± | 1 | | | | | |
| FRACTIONAL ± | 2 | | | | | |
| ANGULAR ± | 3 | | | DRAWN BY WSP | SCALE 1"=40' | MATERIAL |
| | 4 | | | CHECKED | DATE 3/15/2001 | DRAWING NO |
| | 5 | | | TRACED | APPROVED | |

Unico Incorporated
P.O. Box 777
Magalia, CA 95954
801-361-4242 fax 801-796-0257

July 27, 2004

To: USDA Forest Service
Fish Lake National Forest
Beaver, Utah
c/o Mr. Steve Winslow

Re: Additional facilities at the Deer Trail Mine PTH Tunnel area

Dear Steve,

This letter is to serve as a follow-up to our conversation we had yesterday on the phone. We are proposing to bring in two portable office type trailers to the PTH area adjacent to the cinder block building. One trailer is going to be used as a geologist office and the other trailer will be used as part of our laboratory presently in the cinder block building. The geologist office trailer is 12'x28' and the lab trailer is 12'x60'. The reason for locating these portable units at the PTH area is to take advantage of the electrical service that is available there. Please add these two additional facilities to the present plan of operations we have with you.

We have been making good progress in our efforts to begin operations at the Deer Trail mine and mill. We look forward to your comments as it pertains to these additions. As always we will comply with any recommendations that you may have. We are presently prepared to post any additional bonding to secure these additions at the PTH area.

If you should have any questions please call at 801-361-4242 or fax any concerns to 801-796-0257 or 435-326-2004.

Sincerely

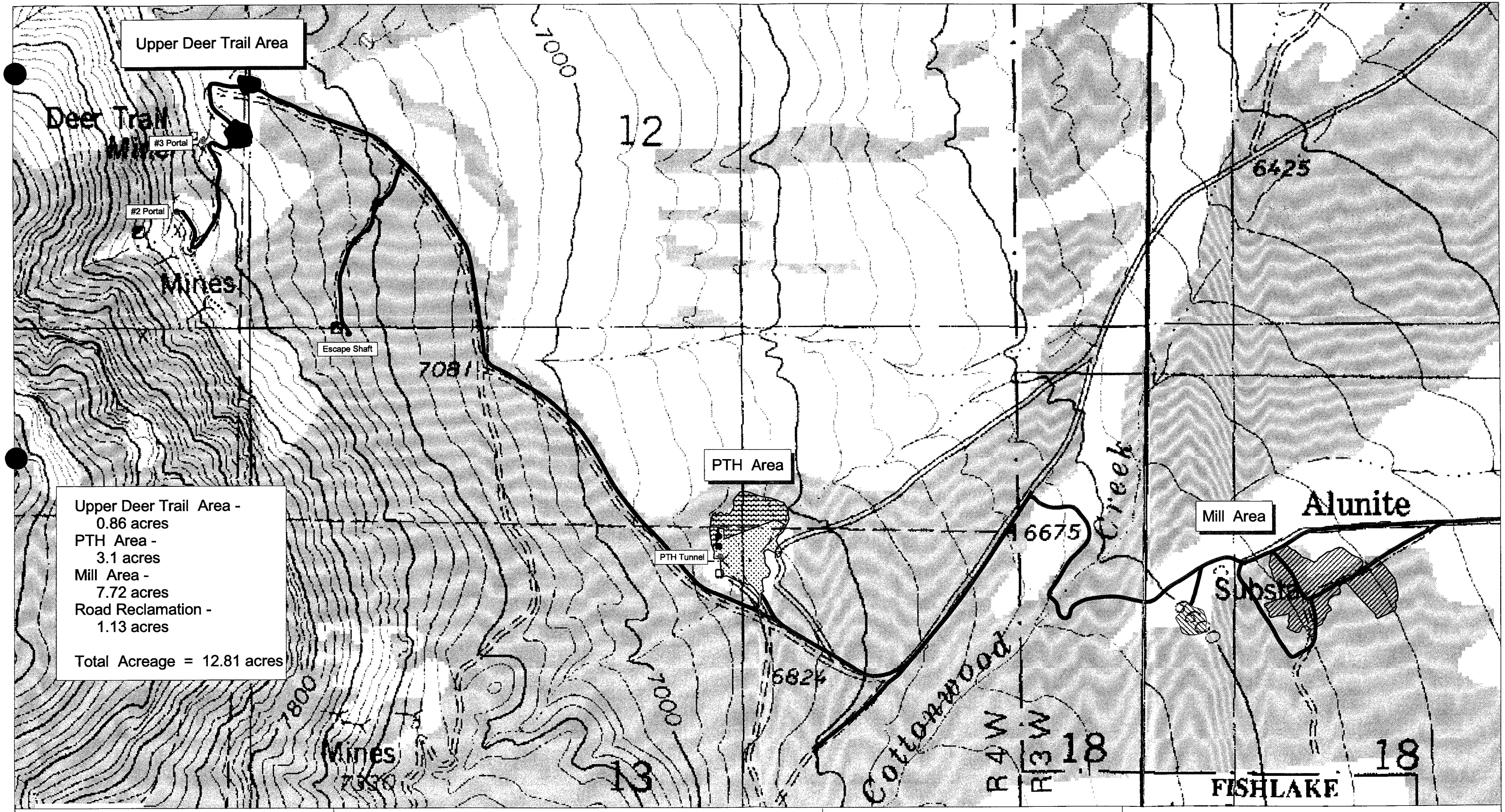
W. Dan Proctor
Unico Incorporated


Deer Trail Millsite
T28S R23W sec18
10/2004 WDP
Unico, Incorporated

3.157 High Impact Acres (H1)
3.422 Low Impact Acres (L1)

6.579 Total Disturbance

w/. 73 fresh water holding Pond (H1) (2" soil)




Upper Deer Trail Area -
0.86 acres
PTH Area -
3.1 acres
Mill Area -
7.72 acres
Road Reclamation -
1.13 acres

Total Acreage = 12.81 acres

Utah Oil, Gas and Mining

Dept. of Natural Resources
Division of Oil, Gas & Mining
Mineral Mines Program

Different data sources and input scales may cause misalignment of data layers. This product may not meet survey standards for accuracy and content.

N

Mount Brigham and Marysvale Quads

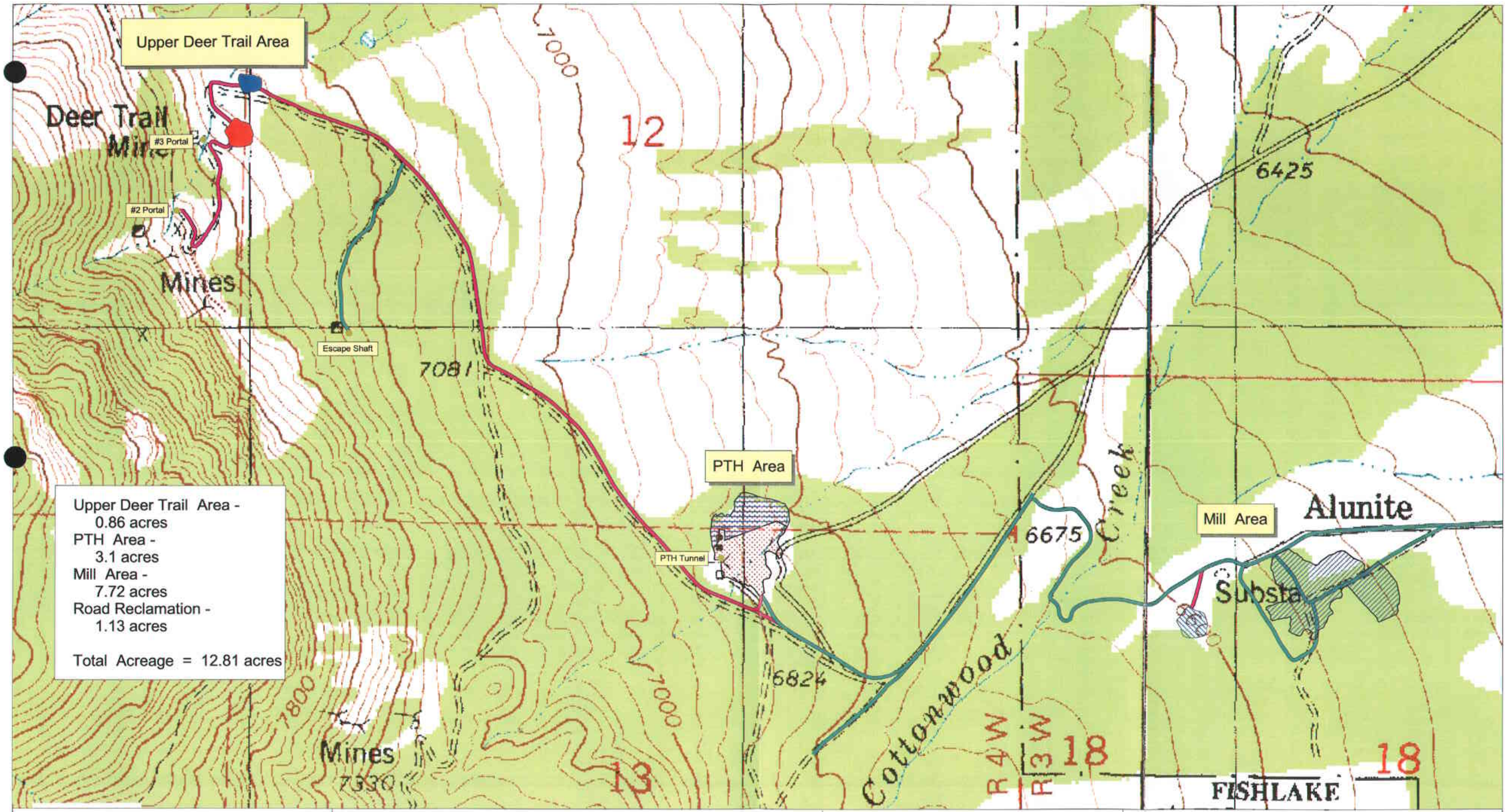
0 500 1000 1500 2000 Feet

Portions of :
Sections 11, 12 and 13
Twnshp 28 S, R 4 W;
Section 18
Twnshp 28 S, R 3 W, SLBM
Piute County, Utah

# Unico - Deer Trail Mine
# General Mine Permit Area
M/031/003

October 18, 2004

Drafted by LK




Utah Oil, Gas and Mining

Dept. of Natural Resources
Division of Oil, Gas & Mining
Mineral Mines Program

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N

0 500 1000 1500 2000 Feet

Mount Brigham and Marysvale Quads

Portions of :
Sections 11, 12 and 13
Twnshp 28 S, R 4 W;
Section 18
Twnshp 28 S, R 3 W, SLBM
Piute County, Utah

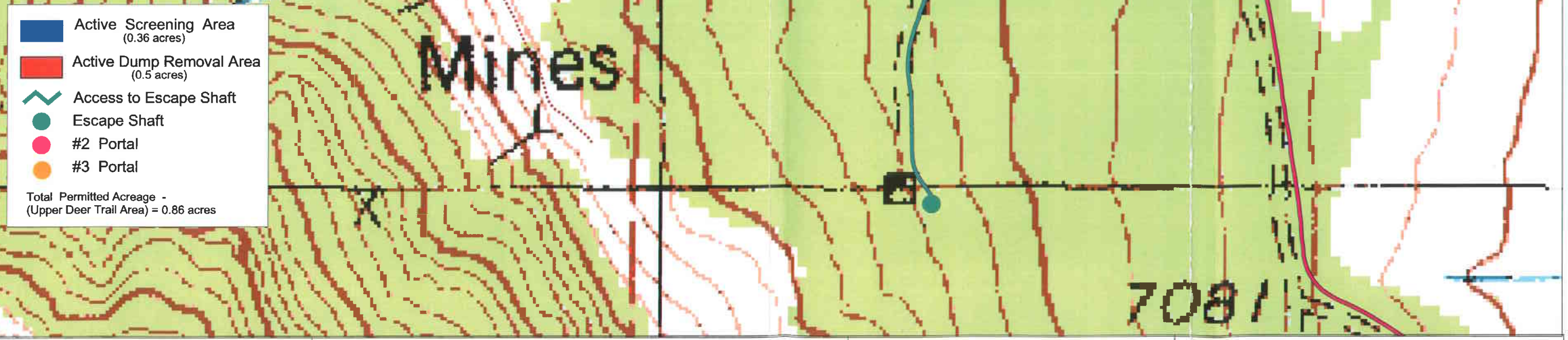
# Unico - Deer Trail Mine
# General Mine Permit Area
M/031/003

October 18, 2004

Drafted by LK

# Deer Trail Mine

Mines




Dept. of Natural Resources
Division of Oil, Gas & Mining
Mineral Mines Program

Utah Oil, Gas and Mining

Different data sources and input scales may cause misalignment of data layers. This product may not meet survey standards for accuracy and content.

N

0 200 400 600 Feet

Mount Brigham Quad

Portions of :
SE1/4 of the SE 1/4 of the NE1/4, and the E1/2 of the NE1/4 of the SE1/4 of Section 11; and the
SW1/4 of the SW1/4 of the NW1/4, and the NW1/4 of the NW1/4 of Section 12;
Twnshp 28 S, R 4 W, SLBM
Piute County, Utah

## Unico - Deer Trail Mine
## Upper Deer Trail Area
M/031/003

October 18, 2004

Drafted by LK

# Alunite

Current Mill Area
( 6.99 acres )

Freshwater Pond
( 0.73 acres )

Access to Pond
( 0.13 acres )

Pre-existing Roads
(Reclaim to 12 wide
thru disturbed areas.)

Subsi

Utah Oil, Gas and Mining

Dept. of Natural Resources
Division of Oil, Gas & Mining
Mineral Mines Program

Different data sources and input scales
may cause misalignment of data layers.
This product may not meet survey
standards for accuracy and content.

N

Mount Brigham and
Marysvale Quads

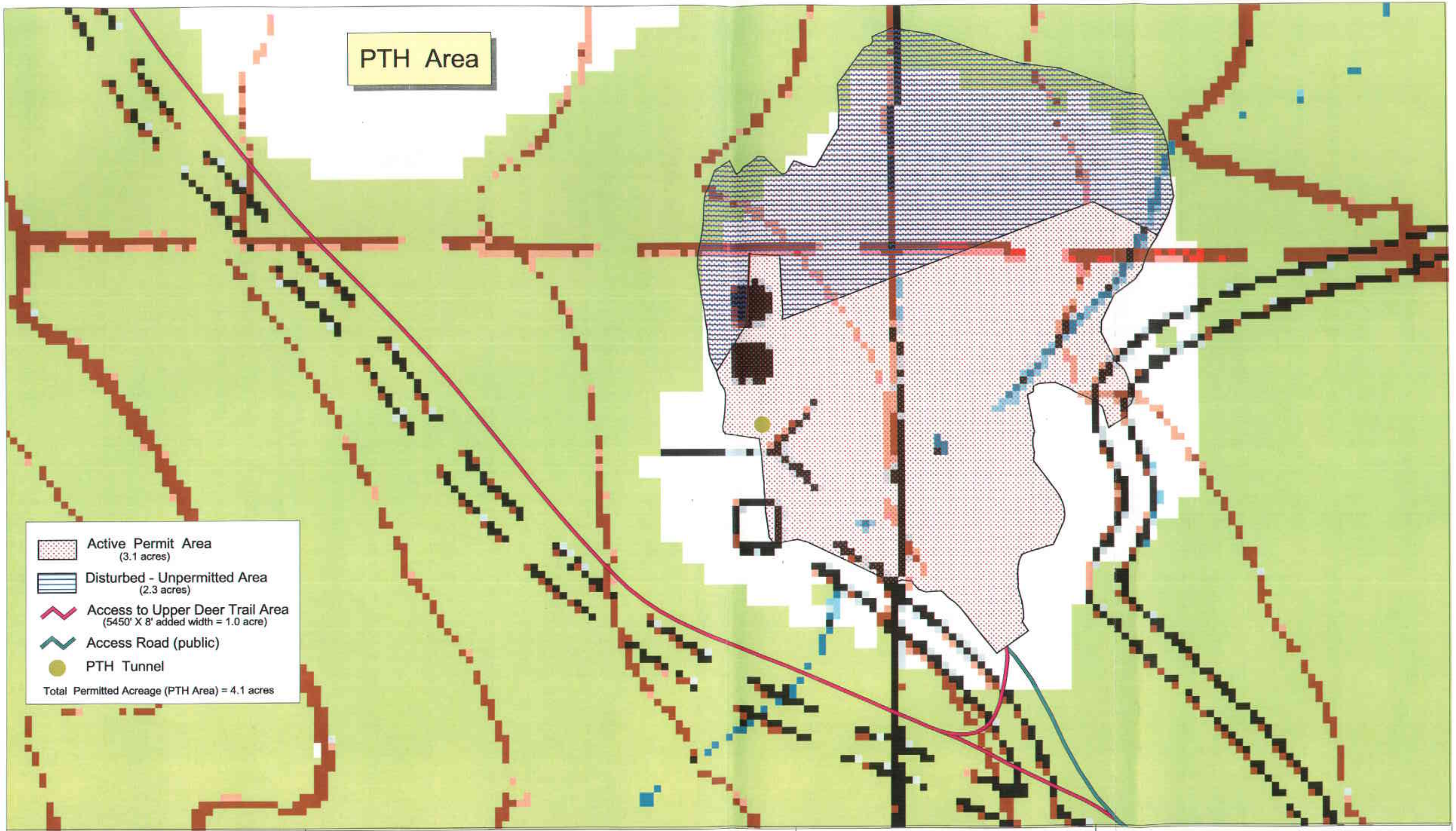
0 100 200 300 400 Feet

Portions of :
SW 1/2 of the NE 1/4 of the NW 1/4;
N 1/2 of the SE 1/4 of the NW 1/4; and
the NE 1/4 of the SW 1/4 of the NW 1/4
of Section 18; Twnshp S, Rng 3 W, SLBM
Piute County, Utah

## Unico - Deer Trail Mine
## Mill Area
M/031/003

October 18, 2004

Drafted by LK




Utah Oil, Gas and Mining

Dept. of Natural Resources
Division of Oil, Gas & Mining
Mineral Mines Program

Different data sources and input scales may cause misalignment of data layers. This product may not meet survey standards for accuracy and content.

N

Mount Brigham and Marysvale Quads

0 100 200 300 Feet

Portions of :
S1/2 of the SW 1/4 of the SE1/4 of Section 12; and the N1/2 of the NW1/4 of the NW1/4 of Section 13;
Twnshp 28 S, R 4 W, SLBM
Piute County, Utah

# Unico - Deer Trail Mine
## PTH Area
M/031/003

October 18, 2004

Drafted by LK

RECEIVED

FEB 12 2007

Div. of Oil, Gas & Mining

February 11, 2007

**Addendum** to the NOTICE OF INTENTION TO COMMENCE LARGE MINING OPERATIONS, form MR-LMO, State of Utah, Department of Natural Resources, Division of Oil, Gas and Mining, file # M10311003. Approved Feb. 11, 2005.

This addendum is specific to the adjustment and determination of bond required on this mining permit. A bond estimate has been generated within this addendum, the cost to be added to the existing bond ($133,676.00 as approved Feb. 11, 2005).

**Rule R-647-4-105 – Maps, Drawings & Photographs**

**105.2 – Surface Facilities Map**

Deer Trail Mine has included into their operation a conveyor system and mill building. These facilities will be located within the existing disturbed boundaries of the mine permit. The conveyor is west of the old mill building and the new mill building is east of the old mill building. These facilities and equipment within are constructed of concrete and steel. Drawings included within this addendum include a location map (fig. NMB-1) and design and construction drawings (NMB-2 through NMB-9).

**105.3 – Additional Maps**

There are no additional maps other than those referenced above. The new mill building and conveyor system is located within the existing permit boundaries.

**Rule R647-4-110 – Reclamation Plan**

After mining has been terminated and reclamation begins, Deer Trail Mine proposes to reclaim both the new mill building and conveyor system. These facilities will be dismantled and disposed of. The concrete foundations and footings will be broken into pieces and metal components will be cut. This material, which is approved for burial, will be hauled to the tailings piles and will be buried within the piles, after which the existing Reclamation plan for the tailings piles will be followed.

**Rule R647-4-113 Surety**

Attached is a Bond Estimate for the new mill building and conveyor system. The estimated cost for demolition and reclamation of the two facilities is reflected within the spreadsheet, included in this addendum. Estimated costs are itemized and reflected on the spreadsheet.

The total estimated cost for the new mill building and conveyor system is ~~$415,626.00.~~ $73,183.00 Adding this number to the existing cost of $133,676.00, an estimated revised surety cost is ~~$549,302.00~~. 206,859.00

# New Mill Reclamation Cost Estimate

September 17, 2007

Unico, Inc.
Deer Trail Mine
M/031/003

| Tasks | | Units | # Units | Unit Cost | Total | Means Reference |
|---|---|---|---|---|---|---|
| **Concrete Demolition** | | | | | | |
| Building Concrete,Heavy Reinforced | | cy | 78 | 125.00 | 9,750.00 | 02 41 13.17 5400 |
| Building concrete Wire Reinforced | | cy | 136 | 5.95 | 809.00 | 02 41 16.17 0420 |
| Footings (lt. Reinforced) | | lf | 314 | 6.70 | 2,104.00 | 02 41 16.17 0440 |
| | total | | | | **$12,663.00** | |
| **Building Demo** | | | | | | |
| Steel Building | | cf | 137890 | 0.28 | 38,609.00 | 02 41 16.13 0012 |
| Discount (no internal rooms) | | | less 50% | | (19,304.50) | 02 41 19.18 5000 |
| | total | | | | $19,305.00 | |
| Building Debris Removal | | cy | 1000 | 10.20 | 10,200.00 | 02 41 19.18 0200 |
| Dump fees | | cy | 1000 | 9.00 | 9,000.00 | 02 41 19.19 0200 |
| | total | | | | **$38,505.00** | |
| **Earthwork** (building footprint) | | | | | | |
| Backfill | | cy | 600 | 8.00 | 4,800.00 | G10 30 140 1600 |
| Topsoil (load,haul,spread - 1ft.) | | cy | 200 | 8.00 | 1,600.00 | G10 30 140 1600 |
| | total | | | | **$6,400.00** | |
| **Mob/Demob** | | | | | | |
| Dozer, Loader | | each | 2 | 2000.00 | 4,000.00 | DOGM Gen. Est. |
| Trucks | | each | 2 | 500.00 | 1,000.00 | DOGM Gen. Est. |
| | total | | | | **$5,000.00** | |
| Subtotal - itemized costs | | | | | **$62,568.00** | |
| Supervision | | 10% of subtotal | | | 6,256.80 | |
| | total | | | | **$68,825.00** | |
| Contingency | | 10% of total | | | 6,882.50 | |
| Total Current Cost | | | | | **$75,708.00** | |
| Escalation (5-year) | | 3.2%/yr | | | 12,913.74 | |
| | **Total Estimate:** | (rounded to nearest $100) | | | **88,600.00** | |

Additional Amt, Needed

Total Needed = $247,900